

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the installation of a new traffic control signal and 12-pair interconnect cable at the intersection of MD 214 and I-95 Ramp A-A in Prince George's County, Maryland. MD 214 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to operate in NEMA two (2) phase, semi-traffic-actuated mode. The MD 214 westbound through movement will operate alone. The I-95 ramp A-A movement will operate alone. The MD 214 eastbound through movement does not stop at anytime.

An eight phase, full-traffic-actuated, solid state digital controller with special interconnect relay package and necessary interconnect system hardware and software, and two 4-channel rack mounted time delay output housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Equipment to be furnished by MD-S.H.A. and installed by the Contractor.

Category Code No.	Quantity	Units	Specification Section	Description
971017	1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, special interconnect relay package and two 4-channel rack mounted loop detector amplifiers. [Note: Controller and cabinet shall be supplied by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
960022	4	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnelvisors.
973023	15	SF	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.
973023	66.75	SF	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
973023	6.25	SF	813	30 in. x 30 in. R 3-2 sign with mast arm mounting hardware.

B. Equipment to be furnished and installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Category Code No.	Quantity	Units	Specification Section	Description
203030	2	CY	205	Test pit excavation.
585445	55	EA	556	24 in. wide HAPPTPM - white for stop line.
837001	2	EA	804	Ground rod - 3/4 in. diameter x 10 ft length.
818041	1	EA	818	27 ft. mast arm pole with 60 ft. mast arm [Note: four 2 in. x 90 in. anchor bolts].
871202	1	EA	816	Install controller/cabinet base mount.
860220	4	EA	814	Install vehicle signal heads - mast arm mounted.
800000	21.25	SF	813	Install sign - mast arm mounted.
813014	66.75	SF	813	Install sign - ground arm mounted.
811001	8	EA	811	Handhole.
862102	360	LF	815	Sawcut for signal loop detector.
862101	1300	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
861104	775	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
800000	35	LF	810	2-conductor tray cable (No. 12 A.W.G.).
861107	70	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
861108	175	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
861117	40	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
861102	40	LF	810	3-wire (No. 8 A.W.G.) electrical cable.
802501	30	LF	810	Bare copper stranded ground wire (No. 6 A.W.G.).
805160	35	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
800000	610	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
800000	30	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
801004	5.90	CY	801	Concrete foundation for traffic signal equipment.
838003	1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-14 overhead electrical service.
801106	123	LF	812	4 in. x 6 in. wood sign support.
866101	1	EA	818	10 ft. luminaire arm.
831010	1	EA	806	250 watt HPS lamp and luminaire.
805150	50	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.

CONTACT LIST

The contact persons for District #3 are as follows:

Mr. Charlie Watkins
District Engineer
301-513-7300

Mr. Majid Shakib
Assistant District Engineer - Traffic
301-513-7300

Mr. Joe Geckle
Assistant District Engineer - Utility
301-513-7300

Mr. Randy Brown
Assistant District Engineer - Maintenance
301-513-7300

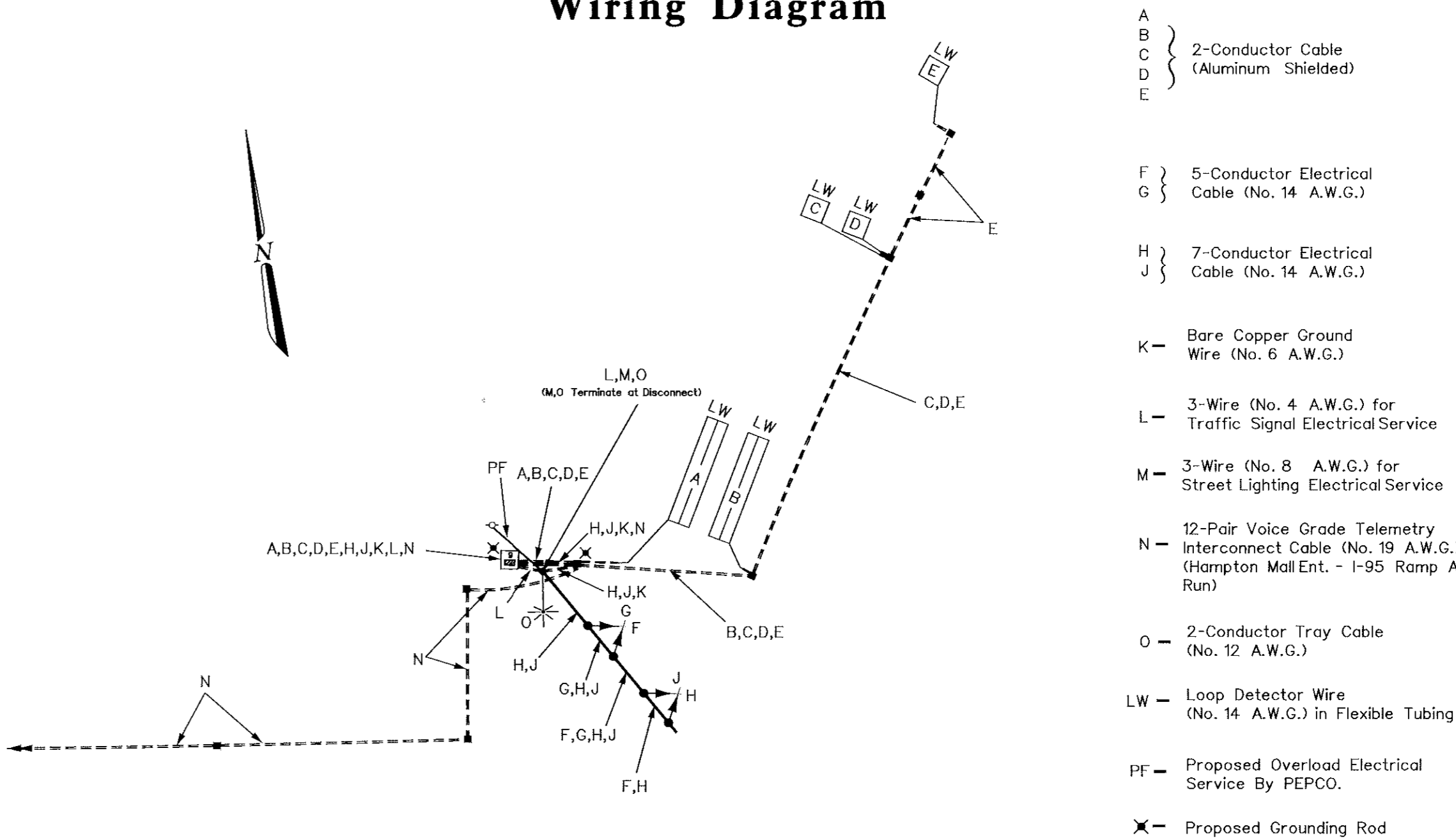
Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Potomac Electric and Power Company
Mr. Ron Beeson
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20770
301-976-5325

Phase Chart

	1	2	3	4	
	(R)	(R)	(R)	(R)	
	(Y)	(Y)	(Y)	(Y)	
	(G)	(G)	(G)	(G)	
Phase 2	G	G	R	R	←
2 Change	Y	Y	R	R	
Phase 4	R	R	G	G	↷
4 Change	R	R	Y	Y	
Flashing Operation	FL/Y	FL/Y	FL/R	FL/R	⚡

Wiring Diagram



The Traffic Group, Inc.
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40 W. Chesapeake Avenue
Towson, Maryland 21204
410-583-8405
1-800-583-8411
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SIGPLAN3.DGN



MDOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

(General Information)

MD 214 (Central Ave.) at
I-95 Ramp A-A

DATE: May 20, 1999 LOG MILE * 160214003.47

DRAWN BY: F. Hoeckel F.A.P. NO. N/A PLAN SHEET NO.: SHEET NO.

CHK. BY: PG2345176 S.H.A. NO. 3903-GI 27 of 36

SCALE: N/A COUNTY: Prince George's